

What is claimed is:

1 1. An apparatus, comprising:

2 a tension mask having a screen part transmitting electron beams, the screen part having a first
3 area including a center region of the screen part, and having a second area distinguishable from the
4 first area; and

5 a mask frame being coupled to said tension mask and reinforcing structural strength of said
6 tension mask while applying tension to said tension mask;

the screen part including a plurality of real slots, dummy slots, and strip parts, the real slots
being located in the first area, the dummy slots being located in the second area.

2 2. The apparatus of claim 1, the real slots in the first area being formed by a plurality
of real bridges in the first area, each real bridge connecting adjacent ones of the strip parts to each
other, the dummy slots in the second area being formed by a plurality of dummy bridges in the
second area.

1 3. The apparatus of claim 2, the first area being symmetrically formed around a first axis
2 and being symmetrically formed around a second axis perpendicular to the first axis.

1 4. The apparatus of claim 3, the first and second axes passing through a center point at
2 a center of the screen part.

1 5. The apparatus of claim 2, the screen part being arranged to have a first edge region
2 substantially parallel to an X axis, the first area being symmetrically formed around a first imaginary
3 line parallel to the X axis, the first area being symmetrically formed around a second imaginary line
4 perpendicular to the X axis.

1 6. The apparatus of claim 5, the first and second imaginary lines being straight lines
2 passing through a center point at a center of the screen part.

1 7. The apparatus of claim 6, the screen part being arranged to have the first edge region
2 on the X axis and a second edge region on a Y axis perpendicular to the X axis, the X and Y axes
3 crossing each other at a corner region of the screen part, the first edge region having a length x' and
4 the second edge region having a length y' , the first area being bordered by six lines connecting six
5 points P_1 to P_6 in sequence, the six points corresponding to coordinates on the X and Y axes and
6 being $P_1(x,y)=(x'/4,0)$, $P_2(x,y)=(3x'/4,0)$, $P_3(x,y)=(3x'/4,y'/2)$, $P_4(x,y)=(3x'/4,y')$, $P_5(x,y)=(x'/4,y')$,
7 $P_6(x,y)=(x'/4,y'/2)$, the six lines including at least two straight lines and up to four curved lines.

1 8. The apparatus of claim 6, the screen part being arranged to have the first edge region
2 on the X axis and a second edge region on a Y axis perpendicular to the X axis, the X and Y axes
3 crossing each other at a corner region of the screen part, the first edge region having a length x' and
4 the second edge region having a length y' , the first area being bordered by six lines connecting six

5 points P_1 to P_6 in sequence, the six points corresponding to coordinates on the X and Y axes and
6 being $P_1(x,y)=(x'/4,0)$, $P_2(x,y)=(3x'/4,0)$, $P_3(x,y)=(2x'/3,y'/2)$, $P_4(x,y)=(3x'/4,y')$, $P_5(x,y)=(x'/4,y')$,
7 $P_6(x,y)=(x'/3,y'/2)$, the six lines including at least two straight lines and up to four curved lines.

1 9. The apparatus of claim 6, the screen part being arranged to have the first edge region
2 on the X axis and a second edge region on a Y axis perpendicular to the X axis, the X and Y axes
3 crossing each other at a corner region of the screen part, the first edge region having a length x' and
4 the second edge region having a length y' , the first area being bordered by six lines connecting six
points P_1 to P_6 in sequence, the six points corresponding to coordinates on the X and Y axes and
being $P_1(x,y)=(x'/3,0)$, $P_2(x,y)=(2x'/3,0)$, $P_3(x,y)=(3x'/4,y'/2)$, $P_4(x,y)=(2x'/3,y')$, $P_5(x,y)=(x'/3,y')$,
 $P_6(x,y)=(x'/4,y'/2)$, the six lines including at least two straight lines and up to four curved lines.

5 10. The apparatus of claim 6, the screen part being arranged to have the first edge region
6 on the X axis and a second edge region on a Y axis perpendicular to the X axis, the X and Y axes
7 crossing each other at a corner region of the screen part, the first edge region having a length x' and
8 the second edge region having a length y' , the first area being bordered by lines connecting six points
 P_1 to P_6 in sequence, each of the six points P_1 to P_6 being located within a respective range, the
locations of the six points corresponding to coordinates on the X and Y axes and being $P_1(x,y)=(x'/4$
 $to x'/3,0)$, $P_2(x,y)=(2x'/3 to 3x'/4,0)$, $P_3(x,y)=(2x'/3 to 3x'/4,y'/2)$, $P_4(x,y)=(2x'/3 to 3x'/4,y')$,
 $P_5(x,y)=(x'/4 to x'/3,y')$, $P_6(x,y)=(x'/4 to x'/3,y'/2)$.

1 11. The apparatus of claim 6, the first area being concavely shaped in a middle region of
2 the second imaginary line.

1 12. The apparatus of claim 6, the first area being convexly shaped in a middle region of
2 the second imaginary line.

1 13. A mask assembly for a cathode ray tube comprising:
2 a tension mask having a screen part transmitting electron beams, the screen part having a first
area including a center region of the screen part, and having a second area distinguishable from the
first area; and

6 a mask frame being coupled to said tension mask and reinforcing structural strength of said
tension mask while applying tension to said tension mask;

9 the screen part including a plurality of real slots, dummy slots, and strip parts, the real slots
being located in the first area, the dummy slots being located in the second area;

10 the first area including an upper part and a lower part, the upper part being spaced apart from
the lower part, a center point at the center of the screen part being located between the upper and
11 lower parts.

1 14. The assembly of claim 13, the real slots in the first area being formed by a plurality
2 of real bridges in the first area, each real bridge connecting adjacent ones of the strip parts to each
3 other, the dummy slots in the second area being formed by a plurality of dummy bridges in the

4 second area.

1 15. The assembly of claim 14, the screen part being arranged to have a first edge region
2 substantially parallel to an X axis, the first area being symmetrically formed around a first imaginary
3 line parallel to the X axis, the first area being symmetrically formed around a second imaginary line
4 perpendicular to the X axis.

1 16. The assembly of claim 15, the screen part being arranged to have the first edge region
2 on the X axis and a second edge region on a Y axis perpendicular to the X axis, the X and Y axes
3 crossing each other at a corner region of the screen part, the first edge region having a length x' and
4 the second edge region having a length y' , the lower part being bordered by three lines connecting
5 three points P_1 to P_3 in sequence, the upper part being bordered by three lines connecting three points
6 P_4 to P_6 in sequence, the six points P_1 to P_6 corresponding to coordinates on the X and Y axes and
7 being $P_1(x,y)=(x'/4,0)$, $P_2(x,y)=(x'/2,y'/4)$, $P_3(x,y)=(3x'/4,0)$, $P_4(x,y)=(x'/4,y')$, $P_5(x,y)=(x'/2,3y'/4)$,
8 $P_6(x,y)=(3x'/4,y')$.

1 17. A mask assembly for a cathode ray tube, comprising:
2 a pair of supporting members;
3 a pair of elastic members, each elastic member being disposed between and connected to said
4 supporting members; and
5 a mask being coupled to said supporting members and being tensioned by said elastic

6 members, said mask having a valid screen part forming a plurality of beam-passing apertures, the
7 screen part having a first area including a center region of the screen part, and having a second area
8 distinguishable from the first area;

9 the screen part including a plurality of real slots, dummy slots, and strip parts, the real slots
10 being located only in the first area, the dummy slots being located only in the second area;

11 the screen part being arranged to have a first edge region substantially parallel to an X axis,
12 the first area being symmetrically formed around a first imaginary line parallel to the X axis, the first
13 area being symmetrically formed around a second imaginary line perpendicular to the X axis.

18. The assembly of claim 17, the first area being formed in a rectangular shape.

19. The assembly of claim 17, the first area being concavely shaped in a middle region
of the second imaginary line.

20. The assembly of claim 17, the first area being convexly shaped in a middle region of
2 the second imaginary line.